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EXAMINER

JONES, HEATHER RAE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/085,192 | Applicant(s) KUNII ET AL. | |
| | Examiner HEATHER R. JONES | Art Unit 2621 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-27, 29-37, 39-43 and 46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-27, 29-37, 39-43 and 46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 3, 2010 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-14, 16-27, 29-37, 39-43, and 46 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 27, 37, and 43 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 27, 37, and 43 define a computer-readable medium embodying functional descriptive material. However, the claim does not define a non-transitory computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer readable medium it becomes structurally and functionally

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interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized” - Guidelines Annex IV). That is, the scope of the presently claimed computer-readable medium can range from paper on which the program is written, to a program simply contemplated and memorized by a person. In the state of the art, transitory signals are commonplace as a medium for transmitting computer instruction and thus, in the absence of any evidence to the contrary and give the broadest reasonable interpretation; the scope of a "computer-readable medium" covers a signal per se. In order to overcome the 101, the "computer-readable medium" should be changed to "non-transitory computer-readable medium”.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al. (U.S. Patent 6,898,762) in view of Miller et al. (GB 2 343 074) in view of Mizutome et al. (U.S. Patent 7,469,413) in view of Huang et al. (U.S. Patent 6,437,836) in view of Berger et al. (U.S. Patent 7,210,100).

Regarding claim **1**, Ellis et al. discloses an information processing system comprising a program information providing apparatus for providing program

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information about programs, and an information processing apparatus having recording and reproducing functions; wherein said program information providing apparatus includes: storing means for storing said program information (Fig. 1); and providing means for retrieving said program information from said storing means before providing the retrieved program information to the user's apparatus (Figs. 2a-2c; col. 5, lines 6-22); and wherein said information processing apparatus includes: receiving means for receiving said preset information from the user's apparatus; and recording controlling means for controlling the unattended recording of said desired program based on said preset information received by said receiving means (col. 9, line 17 - col. 10, line 2). Furthermore, Ellis et al. discloses the information processing system further comprises converter means for converting said program information from a page description language format to another database format, wherein said another database format comprises a less amount of data than said page description language (Ellis et al.: col. 1, line 65 - col. 2, line 3 - there are several ways to send the information which would all require different formatting; the information going to the portable information terminal apparatus will have less information than the information going to a set-top box). However, Ellis et al. fails to disclose a portable information terminal apparatus owned by a user, wherein the program information terminal apparatus includes: a providing means that retrieves the program information based on identifying a user ID associated with an information request transmitted from the portable information terminal apparatus,

wherein upon identifying the user ID the retrieved program information includes registered content applicable to the user ID, and wherein the user ID is unidentifiable, the retrieved program information includes commonly watched channels. Furthermore, Ellis et al. fails to disclose a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said program information providing apparatus; establishing means for establishing preset information for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means. Regarding the converting means, Ellis et al. fails to explicitly disclose convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Miller et al., Miller et al. discloses an information processing system comprising a program information providing apparatus for providing program information about programs that includes: providing means for retrieving the program information from the storing means before providing the

retrieved program information to a terminal apparatus, the providing means retrieving the program information based on identifying a user ID associated with an information request transmitted from the terminal apparatus, wherein upon identifying the user ID the retrieved program information includes registered content applicable to the user ID (Figs. 2, 3, and 10-12; page 4, lines 15-19; page 17, lines 10-29 – custom program guides (EPGs)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided program guides according to the user's preferences based on their user ID as disclosed by Miller et al in the information processing system disclosed by Ellis et al. in order to provide a more user friendly program guide by allowing the user to customize their guide. However, Ellis et al. in view of Miller et al. fail to disclose that when the user ID is unidentifiable, the retrieved program information includes commonly watched channels. Furthermore, Ellis et al. in view of Miller et al. still fail to disclose a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said program information providing apparatus; establishing means for establishing preset information for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means as well as a convertor means coupled to said storing means

and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Mizutome et al., Mizutome et al. discloses an information processing system comprising a program information providing apparatus for providing program information about programs that includes: providing means for retrieving the program information from the storing means before providing the retrieved program information to a terminal apparatus, wherein the retrieved program information can be customized and when there is no user preferences specified a default program guide (commonly watched channels) is displayed to the user (Figs. 16A, 16B, 22A, and 22B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have displayed a default program guide when no user preferences are specified or found as disclosed by Mizutome et al. in the information processing system disclosed by Ellis et al. in view of Miller et al. in order to be able to display a program guide whether or not one is customized for that user or not. Mizutome et al. fails to explicitly state that the default program guide is displayed when the user ID is unidentifiable, but rather when no user preferences are found or specified. However, when Mizutome et al. is combined with Ellis et al. in view of Miller et al. no user preferences being specified are

equivalent to finding no user ID corresponding to the user since Ellis et al. in view of Miller et al. is based on user IDs. Furthermore, Ellis et al. in view of Miller et al. in view of Mizutome et al. still fail to disclose a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said program information providing apparatus; establishing means for establishing preset information for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means as well as a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Huang et al. reference, Huang et al. discloses a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said program information providing apparatus; establishing means for establishing preset information for presetting a desired program to be recorded unattended based on said program information acquired by said

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acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means (Figs.2 and 4; col. 3, lines 56-65). Furthermore, Huang et al. discloses a portable terminal that utilizes the Palm operating system (Fig. 2), which would require the EPG to be converted to a language that excludes tag information that requires less data to be transmitted.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the portable information terminal apparatus disclosed by Huang et al. to schedule recordings remotely with the program guide distribution system disclosed by Ellis et al. in view of Miller et al. in view of Mizutome et al. since Ellis et al. is able to send the program guides over the internet in order to allow the user to schedule any recordings they may have forgotten to when they were home, making the device more user-friendly and to not require as much data be sent to the portable terminal since it operates in the Palm OS.

However, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. still fail to explicitly disclose a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Berger et al. reference, Berger et al. discloses a program information providing apparatus comprising a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval (Figs. 1 and 13; col. 10, line 43 - col. 11, line 54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a convertor means as disclosed by Berger et al. in the device disclosed by Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in order to have properly transmitted the program guide to the portable information terminal.

Regarding claim **2**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the limitations previously discussed with respect to claim 1 including that the program information providing apparatus further includes converting means for retrieving said program information from said storing means before converting the retrieved program information into data of a file format compatible with said portable information terminal apparatus; and wherein said providing means provides said data converted by said converting means to said portable information terminal

apparatus (Ellis et al.: col. 1, line 65 - col. 2, line 3 - there are several ways to send the information which would all require different formatting).

Regarding claim **3**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the limitations previously discussed with respect to claim 1 including that the aid portable information terminal apparatus further includes generating means for generating a preset signal corresponding to said preset information established by said establishing means; and wherein said transmitting means transmits to said information processing apparatus infrared rays modulated to represent said preset signal generated by said generating means (Huang et al.: Fig. 2; col.4, line 62 - col. 5, line 9).

Regarding claim **4**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the limitations previously discussed with respect to claim 1 including that the portable information terminal apparatus further includes generating means for generating a preset signal corresponding to said preset information established by said establishing means; and wherein said transmitting means transmits to said information processing apparatus radio waves modulated to represent said preset signal generated by said generating means (Huang et al.: col. 9, lines 12-24).

Regarding claim **5**, Ellis et al. discloses an information processing system comprising a program information providing apparatus for providing program

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information about programs, and an information processing apparatus having recording and reproducing functions; wherein said program information providing apparatus includes: storing means for storing said program information and advertisement information (Fig. 1); and providing means for retrieving said program information and the advertisement information from said storing means before providing the retrieved program information to the user's apparatus (Figs. 2a-2c; col. 5, lines 6-22); and wherein said information processing apparatus includes: receiving means for receiving said preset information from the user's apparatus; and recording controlling means for controlling the unattended recording of said desired program based on said preset information received by said receiving means (Figs. 5-8c - advertisement information is displayed along with the program information; col. 9, line 17 - col. 10, line 2). Furthermore, Ellis et al. discloses the information processing system further comprises converter means for converting said program information from a page description language format to another database format, wherein said another database format comprises a less amount of data than said page description language (Ellis et al.: col. 1, line 65 - col. 2, line 3 - there are several ways to send the information which would all require different formatting; the information going to the portable information terminal apparatus will have less information than the information going to a set-top box). However, Ellis et al. fails to disclose a portable information terminal apparatus owned by a user, wherein the program information terminal apparatus includes: a providing means that retrieves the

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program information based on identifying a user ID associated with an information request transmitted from the portable information terminal apparatus, wherein upon identifying the user ID the retrieved program information includes registered content applicable to the user ID, and wherein the user ID is unidentifiable, the retrieved program information includes commonly watched channels. Furthermore, Ellis et al. fails to disclose a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said program information providing apparatus; establishing means for establishing preset information for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means. Regarding the converting means, Ellis et al. fails to explicitly disclose convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Miller et al., Miller et al. discloses an information processing system comprising a program information providing apparatus for

providing program information about programs that includes: providing means for retrieving the program information from the storing means before providing the retrieved program information to a terminal apparatus, the providing means retrieving the program information based on identifying a user ID associated with an information request transmitted from the terminal apparatus, wherein upon identifying the user ID the retrieved program information includes registered content applicable to the user ID (Figs. 2, 3, and 10-12; page 4, lines 15-19; page 17, lines 10-29 – custom program guides (EPGs)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided program guides according to the user's preferences based on their user ID as disclosed by Miller et al in the information processing system disclosed by Ellis et al. in order to provide a more user friendly program guide by allowing the user to customize their guide. However, Ellis et al. in view of Miller et al. fail to disclose that when the user ID is unidentifiable, the retrieved program information includes commonly watched channels. Furthermore, Ellis et al. in view of Miller et al. still fail to disclose a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said program information providing apparatus; establishing means for establishing preset information for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said

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information processing apparatus said preset information established by said establishing means as well as a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Mizutome et al., Mizutome et al. discloses an information processing system comprising a program information providing apparatus for providing program information about programs that includes: providing means for retrieving the program information from the storing means before providing the retrieved program information to a terminal apparatus, wherein the retrieved program information can be customized and when there is no user preferences specified a default program guide (commonly watched channels) is displayed to the user (Figs. 16A, 16B, 22A, and 22B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have displayed a default program guide when no user preferences are specified or found as disclosed by Mizutome et al. in the information processing system disclosed by Ellis et al. in view of Miller et al. in order to be able to display a program guide whether or not one is customized for that user or not. Mizutome et al. fails to explicitly state that the default program guide is displayed when the user ID is unidentifiable, but rather when no user

preferences are found or specified. However, when Mizutome et al. is combined with Ellis et al. in view of Miller et al. no user preferences being specified are equivalent to finding no user ID corresponding to the user since Ellis et al. in view of Miller et al. is based on user IDs. Furthermore, Ellis et al. in view of Miller et al. in view of Mizutome et al. still fail to disclose a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said program information providing apparatus; establishing means for establishing preset information for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means as well as a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Huang et al. reference, Huang et al. discloses a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said program information providing apparatus; establishing

means for establishing preset information for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means (Figs.2 and 4; col. 3, lines 56-65). Furthermore, Huang et al. discloses a portable terminal that utilizes the Palm operating system (Fig. 2), which would require the EPG to be converted to a language that excludes tag information that requires less data to be transmitted.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the portable information terminal apparatus disclosed by Huang et al. to schedule recordings remotely with the program guide distribution system disclosed by Ellis et al. in view of Miller et al. in view of Mizutome et al. since Ellis et al. is able to send the program guides over the internet in order to allow the user to schedule any recordings they may have forgotten to when they were home, making the device more user-friendly and to not require as much data be sent to the portable terminal since it operates in the Palm OS. However, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. still fail to explicitly disclose a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said

another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Berger et al. reference, Berger et al. discloses a program information providing apparatus comprising a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval (Figs. 1 and 13; col. 10, line 43 - col. 11, line 54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a convertor means as disclosed by Berger et al. in the device disclosed by Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in order to have properly transmitted the program guide to the portable information terminal.

Regarding claim 6, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the limitations previously discussed with respect to claim 5 including that the program information providing apparatus further includes converting means for retrieving said program information and the advertisement information from said storing means before converting the retrieved program information into data of a file format compatible with said portable information terminal apparatus; and wherein

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said providing means provides said data converted by said converting means to said portable information terminal apparatus (Ellis et al.: col. 1, line 65 - col. 2, line 3 - there are several ways to send the information which would all require different formatting).

Regarding claim **7**, Ellis et al. discloses an information processing system comprising an information processing apparatus which has recording, converter means, and reproducing functions, which stores program information about programs and which is owned by the user; wherein said program information providing apparatus includes: storing means for storing said program information and advertisement information (Fig. 1); and providing means for retrieving said program information and the advertisement information from said storing means before providing the retrieved program information to the user's apparatus (Figs. 2a-2c; col. 5, lines 6-22); and wherein said information processing apparatus includes: receiving means for receiving said preset information from the user's apparatus; and recording controlling means for controlling the unattended recording of said desired program based on said preset information received by said receiving means (Figs. 5-8c - advertisement information is displayed along with the program information; col. 9, line 17 - col. 10, line 2). Furthermore, Ellis et al. discloses the information processing system further comprises converter means for converting said program information from a page description language format to another database format, wherein said another database format comprises a less amount of data than said page description language (Ellis et

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al.: col. 1, line 65 - col. 2, line 3 - there are several ways to send the information which would all require different formatting; the information going to the portable information terminal apparatus will have less information than the information going to a set-top box). However, Ellis et al. fails to disclose a portable information terminal apparatus owned by a user, wherein the program information terminal apparatus includes: a providing means that retrieves the program information based on identifying a user ID associated with an information request transmitted from the portable information terminal apparatus, wherein upon identifying the user ID the retrieved program information includes registered content applicable to the user ID, and wherein the user ID is unidentifiable, the retrieved program information includes commonly watched channels. Furthermore, Ellis et al. fails to disclose a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said information processing apparatus; establishing means for establishing preset information, when the portable information terminal apparatus is disconnected from the program information providing apparatus, for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means. Regarding the converting means, Ellis et al. fails to explicitly disclose convertor means coupled to said storing means and providing means,

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said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Miller et al., Miller et al. discloses an information processing system comprising a program information providing apparatus for providing program information about programs that includes: providing means for retrieving the program information from the storing means before providing the retrieved program information to a terminal apparatus, the providing means retrieving the program information based on identifying a user ID associated with an information request transmitted from the terminal apparatus, wherein upon identifying the user ID the retrieved program information includes registered content applicable to the user ID (Figs. 2, 3, and 10-12; page 4, lines 15-19; page 17, lines 10-29 – custom program guides (EPGs)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided program guides according to the user's preferences based on their user ID as disclosed by Miller et al in the information processing system disclosed by Ellis et al. in order to provide a more user friendly program guide by allowing the user to customize their guide. However, Ellis et al. in view of Miller et al. fail to disclose that when the user ID is unidentifiable, the retrieved program information includes commonly watched

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channels. Furthermore, Ellis et al. in view of Miller et al. still fail to disclose a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said program information providing apparatus; establishing means for establishing preset information for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means as well as a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Mizutome et al., Mizutome et al. discloses an information processing system comprising a program information providing apparatus for providing program information about programs that includes: providing means for retrieving the program information from the storing means before providing the retrieved program information to a terminal apparatus, wherein the retrieved program information can be customized and when there is no user preferences specified a default program guide (commonly watched channels) is displayed to the user (Figs. 16A, 16B, 22A, and 22B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have displayed a default program guide when no user preferences are specified or found as disclosed by Mizutome et al. in the information processing system disclosed by Ellis et al. in view of Miller et al. in order to be able to display a program guide whether or not one is customized for that user or not. Mizutome et al. fails to explicitly state that the default program guide is displayed when the user ID is unidentifiable, but rather when no user preferences are found or specified. However, when Mizutome et al. is combined with Ellis et al. in view of Miller et al. no user preferences being specified are equivalent to finding no user ID corresponding to the user since Ellis et al. in view of Miller et al. is based on user IDs. Furthermore, Ellis et al. in view of Miller et al. in view of Mizutome et al. still fail to disclose a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said program information providing apparatus; establishing means for establishing preset information for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means as well as a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes

said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Huang et al. reference, Huang et al. discloses a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said information processing apparatus; establishing means for establishing preset information, when the portable information terminal apparatus is disconnected from the program information providing apparatus, for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means (Figs.2 and 4; col. 3, lines 56-65). Furthermore, Huang et al. discloses a portable terminal that utilizes the Palm operating system (Fig. 2), which would require the EPG to be converted to a language that excludes tag information that requires less data to be transmitted.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the portable information terminal apparatus disclosed by Huang et al. to schedule recordings remotely with the program guide distribution system disclosed by Ellis et al. in view of Miller et al. in view of Mizutome et al. since Ellis et al. is able to send the program guides over the internet in order to allow the user to schedule any recordings they may have

forgotten to when they were home, making the device more user-friendly and to not require as much data be sent to the portable terminal since it operates in the Palm OS. However, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. still fail to explicitly disclose a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Berger et al. reference, Berger et al. discloses a program information providing apparatus comprising a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval (Figs. 1 and 13; col. 10, line 43 - col. 11, line 54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a convertor means as disclosed by Berger et al. in the device disclosed by Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in order to have properly transmitted the program guide to the portable information terminal.

Regarding claim **8**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the limitations previously discussed with respect to claim 7 including that the acquiring means further acquires said program information sent from another portable information terminal apparatus (Huang et al.: Fig. 2).

Regarding claim **46**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the limitations previously discussed with respect to claim 1 including that the storing means comprises: first storing means for storing said program information in a first file format; and second storing means for storing said program information in a second file format; wherein said providing means is operative to retrieve said program information from said first or second storing means based on a received request, such that, if said request comprises a first file format then said program information is retrieved from said first storing means in said first file format, and if said request comprises a second file format then said program information is retrieved from said second storing means in said second file format, said second file format comprising less data compared to said first file format (Ellis et al.: col. 1, line 65 - col. 2, line 3 - there are several ways to send the information which would all require different formatting, each requiring somewhere to store that format; the information going to the portable information terminal apparatus will have less information than the information going to a set-top box).

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6. Claims 9, 14, 16-20, and 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (U.S. Patent 6,437,836) in view of Miller et al. (GB 2 343 074) in view of Mizutome et al. (U.S. Patent 7,469,413) in view of Berger et al. (U.S. Patent 7,210,100).

Regarding claim **9**, Huang et al. discloses a portable information terminal apparatus connected to a recording/reproducing apparatus, the portable information terminal apparatus comprising: acquiring means for acquiring program about programs; displaying means for displaying the program information acquired by the acquiring means; establishing means for establishing preset information for presetting a desired program to be recorded unattended based on an operational input made by a user referring to the program information displayed by the displaying means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means (Figs.2 and 4; col. 3, lines 56-65); and registering means for registering detailed information for designating said program information to be acquired by said acquiring means; wherein said displaying means further displays said detailed information registered by said registering means (Figs 1A and 4 – step 414). Furthermore, Huang et al. discloses a portable terminal that utilizes the Palm operating system (Fig. 2), which would require the EPG to be converted to a language that excludes tag information that requires less data to be transmitted. However, Huang et al. fails to disclose a portable information terminal apparatus owned by a user, wherein

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the program information terminal apparatus includes: a providing means that retrieves the program information based on identifying a user ID associated with an information request transmitted from the portable information terminal apparatus, wherein upon identifying the user ID the retrieved program information includes registered content applicable to the user ID, and wherein the user ID is unidentifiable, the retrieved program information includes commonly watched channels as well as a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Miller et al., Miller et al. discloses an information processing system comprising a program information providing apparatus for providing program information about programs that includes: providing means for retrieving the program information from the storing means before providing the retrieved program information to a terminal apparatus, the providing means retrieving the program information based on identifying a user ID associated with an information request transmitted from the terminal apparatus, wherein upon identifying the user ID the retrieved program information includes registered content applicable to the user ID (Figs. 2, 3, and 10-12; page 4, lines 15-19; page 17, lines 10-29 – custom program guides (EPGs)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided program guides according to the user's preferences based on their user ID as disclosed by Miller et al in the information processing system disclosed by Huang et al. in order to provide a more user friendly program guide by allowing the user to customize their guide. However, Huang et al. in view of Miller et al. fail to disclose that when the user ID is unidentifiable, the retrieved program information includes commonly watched channels as well as a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Mizutome et al., Mizutome et al. discloses an information processing system comprising a program information providing apparatus for providing program information about programs that includes: providing means for retrieving the program information from the storing means before providing the retrieved program information to a terminal apparatus, wherein the retrieved program information can be customized and when there is no user preferences specified a default program guide (commonly watched channels) is displayed to the user (Figs. 16A, 16B, 22A, and 22B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have displayed a default program guide when no user preferences are specified or found as disclosed by Mizutome et al. in the information processing system disclosed by Huang et al. in view of Miller et al. in order to be able to display a program guide whether or not one is customized for that user or not. Mizutome et al. fails to explicitly state that the default program guide is displayed when the user ID is unidentifiable, but rather when no user preferences are found or specified. However, when Mizutome et al. is combined with Huang et al. in view of Miller et al. no user preferences being specified are equivalent to finding no user ID corresponding to the user since Huang et al. in view of Miller et al. is based on user IDs. However, Huang et al. in view of Miller et al. in view of Mizutome et al. still fail to explicitly disclose a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Berger et al. reference, Berger et al. discloses a program information providing apparatus comprising a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another

database format comprises a less amount of data than said page description language and requires no data analysis following retrieval (Figs. 1 and 13; col. 10, line 43 - col. 11, line 54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a convertor means as disclosed by Berger et al. in the device disclosed by Huang et al. in view of Miller et al. in view of Mizutome et al. in order to have properly transmitted the program guide to the portable information terminal.

Regarding claim **14**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously discussed with respect to claim 9, as well as disclosing storing means for storing said preset information established by said establishing means; and controlling means for controlling exchanges of information with said recording/reproducing apparatus; wherein said transmitting means transmits said preset information from said storing means to said recording/reproducing apparatus under control of said controlling means (Huang et al.: Fig. 4).

Regarding claim **16**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously discussed with respect to claim 9 including that the detailed information includes any one of a region, a channel, and a user ID (Huang et al.: Fig. 5).

Regarding claim **17**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously

discussed with respect to claim 9 including that the registering means registers a plurality of items of said detailed information, and wherein said acquiring means acquires said program information corresponding to said plurality of items of said detailed information registered by said registering means (Huang et al.: Fig. 4 – step 414).

Regarding claim **18**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously discussed with respect to claim 9 including that if said program information corresponding to said detailed information is acquired by said acquiring means, then said displaying means further displays a predetermined mark pointing to said detailed information (Huang et al.: Figs. 4 and 5).

Regarding claim **19**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously discussed with respect to claim 9 as well as disclosing controlling means for controlling exchanges of information with said recording/reproducing apparatus; and receiving means which, under control of said controlling means, receives from said recording/reproducing apparatus a message regarding preset status of said desired program as part of said preset information transmitted from said transmitting means; wherein said displaying means further displays a predetermined mark pointing to said detailed information based on said message received by said receiving means (Huang et al.: Figs. 2, 4, and 5).

Regarding claim **20**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously discussed with respect to claim 9 as well as the apparatus further comprising receiving means for receiving image data derived from conversion of said desired program, recorded by said recording/reproducing apparatus, into a predetermined file format; wherein said displaying means further displays said image data received by said receiving means (Huang et al.: Figs. 2 and 4).

Regarding claim **22**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously discussed with respect to claim 9 including a transmitting means transmits infrared rays modulated to represent a preset signal corresponding to said preset information (Huang et al.: Fig. 2; col.4, line 62 - col. 5, line 9).

Regarding claim **23**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously discussed with respect to claim 9 including that the transmitting means transmits radio waves modulated to represent a preset signal corresponding to said preset information (Huang et al.: col. 9, lines 12 -24).

Regarding claim **24**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously discussed with respect to claim 9 including that the transmitting means transmits said preset information over a network (Huang et al.: Fig. 2; col. 4, line 62 – col. 5, line 9; col. 9, lines 12-24).

Regarding claim **25**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously discussed with respect to claim 9 as well as disclosing updating means for updating said preset information established by said establishing means (Huang et al.: Fig. 4 - step 420).

Regarding claim **26**, this is a method claim corresponding to the apparatus claim 9. Therefore, claim 26 is analyzed and rejected as previously discussed with respect to claim 9.

Regarding claim **27**, this is a computer-readable medium claim corresponding to the apparatus claim 9. Therefore, claim 27 is analyzed and rejected as previously discussed with respect to claim 9.

7. Claims 10-13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. as applied to claim 9 above, and further in view of Ellis et al. (U.S. Patent 6,898,762).

Regarding claim **10**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously discussed with respect to claim 9, but fails to disclose a judging means; wherein said program information includes detailed program information associated with advertisement information; wherein said judging means judges whether the program information acquired by said acquiring means is associated with said advertisement information; and wherein, if said judging means judges that said

program information is not associated with said advertisement information, then said displaying means does not display said program information.

Referring to the Ellis et al. reference, Ellis et al. discloses a judging means; wherein said program information includes detailed program information associated with advertisement information; wherein said judging means judges whether the program information acquired by said acquiring means is associated with said advertisement information; and wherein, if said judging means judges that said program information is not associated with said advertisement information, then said displaying means does not display said program information (col. 10, lines 18-27 – advertisements directed to pay-per-view movies; col. 19, line 64 - col. 20, line 16 – targeted advertisements).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a judging means as disclosed by Ellis et al. in the portable information terminal apparatus disclosed by Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. in order to target the advertisements to the user and the other programs.

Regarding claim **11**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. in view of Ellis et al. discloses all the limitations as previously discussed with respect to claims 9 and 10 including that the detailed program information includes either an indicator pointing to a location where further information associated with said program information exists, or information about reference to the associated information (Ellis et al:

col. 10, lines 18-27 – advertisements directed to pay-per-view movies; col. 19, line 64 - col. 20, line 16 – targeted advertisements).

Regarding claim **12**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. in view of Ellis et al. discloses all the limitations as previously discussed with respect to claims 9 and 10 including that the advertisement information includes detailed advertisement information associated with said advertisement information; and wherein said detailed advertisement information includes either an indicator pointing to a location where further information associated with said advertisement information exists, or information about a reference to the associated information (Ellis et al.: col. 10, lines 18-27 – advertisements directed to pay-per-view movies; col. 19, line 64 - col. 20, line 16 – targeted advertisements).

Regarding claim **13**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously discussed with respect to claim 9, but fails to disclose a judging means and updating means; wherein said program information is associated with advertisement information; wherein said advertisement information includes time limit information denoting a time limit; wherein said judging means judges whether said time limit denoted by said time limit information in said advertisement information has expired; and wherein said updating means updates said program information based on the judgment by said judging means.

Referring to the Ellis et al. reference, Ellis et al. discloses a judging means and updating means; wherein said program information is associated with advertisement information; wherein said advertisement information includes time limit information denoting a time limit; wherein said judging means judges whether said time limit denoted by said time limit information in said advertisement information has expired; and wherein said updating means updates said program information based on the judgment by said judging means (col. 10, lines 18-27 – advertisements directed to pay-per-view movies; col. 19, line 64 - col. 20, line 16 – targeted advertisements).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a judging means as disclosed by Ellis et al. in the portable information terminal apparatus disclosed by Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. in order to target the advertisements to the user and the other programs.

Regarding claim **21**, Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. discloses all the limitations as previously discussed with respect to claim 9, but fails to disclose a managing means for managing a schedule list in which to register what is scheduled by said user; judging means for judging whether or not to write said preset information established by said establishing means to said schedule list managed by said managing means; and writing means which, based on the judgment by said judging means, writes said preset information established by said establishing

means to said schedule list managed by said managing means; wherein said displaying means further displays said schedule list including said preset information written by said writing means.

Referring to the Ellis et al. reference, Ellis et al. discloses a managing means for managing a schedule list in which to register what is scheduled by said user; judging means for judging whether or not to write said preset information established by said establishing means to said schedule list managed by said managing means; and writing means which, based on the judgment by said judging means, writes said preset information established by said establishing means to said schedule list managed by said managing means; wherein said displaying means further displays said schedule list including said preset information written by said writing means (col. 9, line 17 – col. 10, line 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a judging means as disclosed by Ellis et al. in the portable information terminal apparatus disclosed by Huang et al. in view of Miller et al. in view of Mizutome et al. in view of Berger et al. in order to properly schedule programs for recording so there is no overlapping in scheduled recording times.

8. Claims 29, 31-37, 39, 40, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al. (U.S. Patent 6,898,762) in view of Miller et al. (GB 2 343 074) in view of Mizutome et al. (U.S. Patent 7,469,413) in view of Huang et al. in view of Berger et al. (U.S. Patent 7,120,100).

Regarding claim **29**, Ellis et al. discloses a program information providing apparatus for providing program information about programs to an information processing apparatus over a network, said program information providing apparatus comprising: storing means for storing said program information and advertisement information (Figs. 2a-2c; col. 5, lines 6-22); converting means for, based on a request from said information processing apparatus, retrieving said program information and said advertisement information from said storing means and then converting the retrieved information into data of a predetermined format compatible with said information processing apparatus (col. 1, line 65 - col. 2, line 3 - there are several ways to send the information which would all require different formatting); and providing means for providing said data converted by said converting means to said information processing apparatus over said network (col. 1, line 65 - col. 2, line 3). Furthermore, Ellis et al. discloses the information processing system further comprises converter means for converting said program information from a page description language format to another database format, wherein said another database format comprises a less amount of data than said page description language (Ellis et al.: col. 1, line 65 - col. 2, line 3 - there are several ways to send the information which would all require different formatting; the information going to the portable information terminal apparatus will have less information than the information going to a set-top box). However, Ellis et al. fails to disclose a portable information terminal apparatus owned by a user, wherein the program information terminal apparatus includes: a

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providing means that retrieves the program information based on identifying a user ID associated with an information request transmitted from the portable information terminal apparatus, wherein upon identifying the user ID the retrieved program information includes registered content applicable to the user ID, and wherein the user ID is unidentifiable, the retrieved program information includes commonly watched channels. Regarding the converting means, Ellis et al. fails to explicitly disclose convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Miller et al., Miller et al. discloses an information processing system comprising a program information providing apparatus for providing program information about programs that includes: providing means for retrieving the program information from the storing means before providing the retrieved program information to a terminal apparatus, the providing means retrieving the program information based on identifying a user ID associated with an information request transmitted from the terminal apparatus, wherein upon identifying the user ID the retrieved program information includes registered content applicable to the user ID (Figs. 2, 3, and 10-12; page 4, lines 15-19; page 17, lines 10-29 – custom program guides (EPGs)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided program guides according to the user's preferences based on their user ID as disclosed by Miller et al in the information processing system disclosed by Ellis et al. in order to provide a more user friendly program guide by allowing the user to customize their guide.

However, Ellis et al. in view of Miller et al. fail to disclose that when the user ID is unidentifiable, the retrieved program information includes commonly watched channels. Regarding the converting means, Ellis et al. in view of Miller et al. fails to explicitly disclose converting the program information from a page description language format to another database format that excludes tag information since it is not disclosed which operating system the portable terminal is using as well as a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Mizutome et al., Mizutome et al. discloses an information processing system comprising a program information providing apparatus for providing program information about programs that includes: providing means for retrieving the program information from the storing means before providing the retrieved program information to a terminal apparatus, wherein the retrieved

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program information can be customized and when there is no user preferences specified a default program guide (commonly watched channels) is displayed to the user (Figs. 16A, 16B, 22A, and 22B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have displayed a default program guide when no user preferences are specified or found as disclosed by Mizutome et al. in the information processing system disclosed by Ellis et al. in view of Miller et al. in order to be able to display a program guide whether or not one is customized for that user or not. Mizutome et al. fails to explicitly state that the default program guide is displayed when the user ID is unidentifiable, but rather when no user preferences are found or specified. However, when Mizutome et al. is combined with Huang et al. in view of Miller et al. no user preferences being specified are equivalent to finding no user ID corresponding to the user since Ellis et al. in view of Miller et al. is based on user IDs. Regarding the converting means, Ellis et al. in view of Miller et al. in view of Mizutome et al. fails to explicitly disclose converting the program information from a page description language format to another database format that excludes tag information since it is not disclosed which operating system the portable terminal is using as well as a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of

data than said page description language and requires no data analysis following retrieval.

Referring to the Huang et al. reference, Huang et al. discloses a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said program information providing apparatus; establishing means for establishing preset information for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means (Figs.2 and 4; col. 3, lines 56-65). Furthermore, Huang et al. discloses a portable terminal that utilizes the Palm operating system (Fig. 2), which would require the EPG to be converted to a language that excludes tag information that requires less data to be transmitted.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the portable information terminal apparatus disclosed by Huang et al. to schedule recordings remotely with the program guide distribution system disclosed by Ellis et al. in view of Miller et al. in view of Mizutome et al. since Ellis et al. is able to send the program guides over the internet in order to allow the user to schedule any recordings they may have forgotten to when they were home, making the device more user-friendly and to not require as much data be sent to the portable terminal since it operates in the

Palm OS. However, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. still fail to explicitly disclose a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Berger et al. reference, Berger et al. discloses a program information providing apparatus comprising a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval (Figs. 1 and 13; col. 10, line 43 - col. 11, line 54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a convertor means as disclosed by Berger et al. in the device disclosed by Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in order to have properly transmitted the program guide to the portable information terminal.

Regarding claim **30**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the information

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as previously discussed with respect to claim 29, but fails to disclose a charging means for calculating a fee for inserting said advertisement information and charging said fee on a sponsor of said advertisement information. Official Notice is taken that it is well known to charge the sponsor for advertising. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have charged the sponsor a fee for advertising in order for the distribution facility to make money to continue providing program information.

Regarding claim **31**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the information as previously discussed with respect to claim 29, including that the storing means further stores user information about a user who owns said information processing apparatus (Ellis et al.: col. 19, line 64 – col. 20, line 16).

Regarding claim **32**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the information as previously discussed with respect to claim 29, including that the program information includes detailed program information associated with said program information, and wherein said advertisement information includes detailed advertisement information associated with said advertisement information (Ellis et al.: col. 19, line 64 - col. 20, line 16).

Regarding claim **33**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the information as previously discussed with respect to claims 29 and 32, including that the

detailed program information includes either an indicator pointing to a location where further information associated with said program information exists, or information about a reference to the associated information (Ellis et al.: col. 19, line 64 – col. 20, line 16).

Regarding claim **34**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the information as previously discussed with respect to claims 29 and 32, including that the detailed advertisement information includes either an indicator pointing to a location where further information associated with said advertisement information exists, or information about a reference to the associated information (Ellis et al.: col. 19, line 64 – col. 20, line 16).

Regarding claim **35**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the information as previously discussed with respect to claim 29 including that the advertisement information includes time limit information denoting a time limit (Ellis et al.: col. 10, lines 18-27 – advertisements directed to pay-per-view movies; col. 19, line 64 - col. 20, line 16 – targeted advertisements).

Regarding claim **36**, this is a method claim corresponding to the apparatus claim 29. Therefore, claim 36 is analyzed and rejected as previously discussed with respect to claim 29.

Regarding claim **37**, this is a computer-program storage medium claim corresponding to the apparatus claim 29. Therefore, claim 37 is analyzed and rejected as previously discussed with respect to claim 29.

Regarding claim **39**, Ellis et al. discloses a recording/reproducing apparatus connected to a portable information terminal apparatus, said recording/reproducing apparatus comprising: receiving means for receiving from said portable information terminal apparatus preset information for presetting a desired program to be recorded unattended, the preset information determined from program information received by the portable information terminal apparatus; and recording controlling means for controlling the unattended recording of said desired program based on said preset information received by said receiving means (Figs. 3 and 4), wherein the preset information is converted to a predetermined format compatible to with the recording/reproducing apparatus (col. 1, line 65 - col. 2, line 3 - several ways the program information and the advertisement information can be sent to the information processing apparatus. It is well known in the art that the information would need to be converted to accommodate the receiving apparatus in order to be displayed correctly. Furthermore, in Fig. 2a processing circuitry 54 includes circuitry suitable for finding and transmitting the requested information to the information processing apparatus.). Furthermore, Ellis et al. discloses the information processing system further comprises converter means for converting said program information from a page description language format to another

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database format, wherein said another database format comprises a less amount of data than said page description language (Ellis et al.: col. 1, line 65 - col. 2, line 3 - there are several ways to send the information which would all require different formatting; the information going to the portable information terminal apparatus will have less information than the information going to a set-top box). However, Ellis et al. fails to disclose a portable information terminal apparatus owned by a user, wherein the program information terminal apparatus includes: a providing means that retrieves the program information based on identifying a user ID associated with an information request transmitted from the portable information terminal apparatus, wherein upon identifying the user ID the retrieved program information includes registered content applicable to the user ID, and wherein the user ID is unidentifiable, the retrieved program information includes commonly watched channels. Regarding the converting means, Ellis et al. fails to explicitly disclose convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Miller et al., Miller et al. discloses an information processing system comprising a program information providing apparatus for providing program information about programs that includes: providing means for

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retrieving the program information from the storing means before providing the retrieved program information to a terminal apparatus, the providing means retrieving the program information based on identifying a user ID associated with an information request transmitted from the terminal apparatus, wherein upon identifying the user ID the retrieved program information includes registered content applicable to the user ID (Figs. 2, 3, and 10-12; page 4, lines 15-19; page 17, lines 10-29 – custom program guides (EPGs)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided program guides according to the user's preferences based on their user ID as disclosed by Miller et al in the information processing system disclosed by Ellis et al. in order to provide a more user friendly program guide by allowing the user to customize their guide.

However, Ellis et al. in view of Miller et al. fail to disclose that when the user ID is unidentifiable, the retrieved program information includes commonly watched channels. Regarding the converting means, Ellis et al. in view of Miller et al. fails to explicitly disclose converting the program information from a page description language format to another database format that excludes tag information since it is not disclosed which operating system the portable terminal is using as well as a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of

data than said page description language and requires no data analysis following retrieval.

Referring to the Mizutome et al., Mizutome et al. discloses an information processing system comprising a program information providing apparatus for providing program information about programs that includes: providing means for retrieving the program information from the storing means before providing the retrieved program information to a terminal apparatus, wherein the retrieved program information can be customized and when there is no user preferences specified a default program guide (commonly watched channels) is displayed to the user (Figs. 16A, 16B, 22A, and 22B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have displayed a default program guide when no user preferences are specified or found as disclosed by Mizutome et al. in the information processing system disclosed by Ellis et al. in view of Miller et al. in order to be able to display a program guide whether or not one is customized for that user or not. Mizutome et al. fails to explicitly state that the default program guide is displayed when the user ID is unidentifiable, but rather when no user preferences are found or specified. However, when Mizutome et al. is combined with Huang et al. in view of Miller et al. no user preferences being specified are equivalent to finding no user ID corresponding to the user since Ellis et al. in view of Miller et al. is based on user IDs. Regarding the converting means, Ellis et al. in view of Miller et al. in view of Mizutome et al. fails to explicitly disclose

converting the program information from a page description language format to another database format that excludes tag information since it is not disclosed which operating system the portable terminal is using as well as a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Huang et al. reference, Huang et al. discloses a portable information terminal apparatus owned by a user, wherein the portable information terminal apparatus includes: acquiring means for acquiring said program information from said program information providing apparatus; establishing means for establishing preset information for presetting a desired program to be recorded unattended based on said program information acquired by said acquiring means; and transmitting means for transmitting to said information processing apparatus said preset information established by said establishing means (Figs.2 and 4; col. 3, lines 56-65). Furthermore, Huang et al. discloses a portable terminal that utilizes the Palm operating system (Fig. 2), which would require the EPG to be converted to a language that excludes tag information that requires less data to be transmitted.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the portable information terminal apparatus disclosed by Huang et al. to schedule recordings remotely with the program guide distribution system disclosed by Ellis et al. in view of Miller et al. in view of Mizutome et al. since Ellis et al. is able to send the program guides over the internet in order to allow the user to schedule any recordings they may have forgotten to when they were home, making the device more user-friendly and to not require as much data be sent to the portable terminal since it operates in the Palm OS. However, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. still fail to explicitly disclose a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description language and requires no data analysis following retrieval.

Referring to the Berger et al. reference, Berger et al. discloses a program information providing apparatus comprising a convertor means coupled to said storing means and providing means, said convertor means converting, under control of said providing means, said program information hierarchically using tags to another database format that excludes said tags, wherein said another database format comprises a less amount of data than said page description

language and requires no data analysis following retrieval (Figs. 1 and 13; col. 10, line 43 - col. 11, line 54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a convertor means as disclosed by Berger et al. in the device disclosed by Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in order to have properly transmitted the program guide to the portable information terminal.

Regarding claim **40**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the information as previously discussed with respect to claim 39 including that the controlling means into image data of a predetermined file format in response to a request from said portable information terminal apparatus; and transmitting means for transmitting said image data converted by said converting means to said portable information terminal apparatus (Ellis et al.: col. 1, line 65 - col. 2, line 3 - there are several ways to send the information which would all require different formatting).

Regarding claim **41**, Ellis et al. in view of Miller et al. in view of Mizutome et al. in view of Huang et al. in view of Berger et al. discloses all the information as previously discussed with respect to claim 39 but fails to disclose a transmitting means for transmitting to said portable information terminal apparatus a message regarding preset status of said desired program as part of said preset information received by said receiving means. Official Notice is taken that it is well known to notify the user of the recording status and any conflicts.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to alert the user regarding the recording status to allow the user to make different recording arrangements if necessary.

Regarding claim **42**, this is a method claim corresponding to the apparatus claim 39. Therefore, claim 42 is analyzed and rejected as previously discussed with respect to claim 39.

Regarding claim **43**, this is a computer-program storage medium claim corresponding to the apparatus claim 39. Therefore, claim 43 is analyzed and rejected as previously discussed with respect to claim 39.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEATHER R. JONES whose telephone number is (571)272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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Heather R Jones
Examiner
Art Unit 2621

HRJ
June 19, 2010

/Thai Tran/

Supervisory Patent Examiner, Art Unit 2621